Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-3 (Canceled)

4. (Currently amended) The circuit of ~~claim 1~~ claim 9, wherein the time delay circuit includes at least one of a resistor and a capacitor.

5. (Original) The circuit of claim 4, wherein at least one of the resistor and the capacitor are variable.

6-7 (Canceled)

8. (Currently amended) A data link system comprising:

a ~~receiver~~ transceiver ~~;~~ ~~and~~

~~a first transmitter~~ including:

a power control circuit; and ~~the power control circuit including:~~

~~a time delay circuit; and~~

~~a variable current source~~.

an antenna, coupled to the power control circuit, the antenna having an input comprising a signal proportional to a product involving at least two of a linear ramp, a step ramp and an exponential ramp signal, the step ramp signal including at least three steps.

9. (Currently amended) A power amplifier circuit comprising:

a first transistor having a first input and ~~a first~~ an output

the first input being adapted to receive a high frequency signal in the Gigahertz range ;

a second transistor having a second input coupled in series with the ~~first~~ output of the first transistor

the second input being adapted to receive a low frequency signal in the Megahertz range,

wherein the low frequency input signal consumes no additional current;

an input circuit coupled to the first input of the first transistor; and

a power control circuit coupled to the second input of the second transistor, the power control circuit including:

~~an RC~~ a time delay circuit, and

a variable current source. ~~including a digital input and a digital-to-analog converter.~~

10. (Canceled)

11. (Currently amended) A method of controlling power output of an amplifier comprising:

receiving a control signal;

producing a stepped power control signal ~~including~~ having a plurality of power control steps, wherein producing each one of the plurality of steps includes:

producing a step voltage, ~~and~~

applying a time delay to the step voltage, and

applying the stepped power control signal to a power control input of the amplifier;

mixing said stepped power control signal with an exponential signal to smooth said power control signal and thereby eliminate undesirable harmonics at each step of said stepped power control signal;

generating an optimized linear transfer function curve for the amplifier by subdividing the time and amplitude into more than one steps wherein

each step is limited by at least two unequal time constants to avoid sharp transitions; and

adjusting the power output signal from a minimum level to a maximum desired level within a desired timeframe while substantially eliminating harmonics.

12. (Original) The method of claim 11, wherein the control signal is a digital control signal.

13. (Canceled)

14. (Original) The method of claim 11, wherein the control signal determines a number of steps included in the plurality of steps.

15. (Canceled)

16. (Currently amended) The method of claim 11, wherein at least one of the plurality of steps ~~will~~ causes the amplifier to produce a desired output power level.

17. (Canceled)

18. (Canceled)

19. (New) A method for minimizing undesirable harmonics in the power output of an amplifier comprising:

receiving a control signal;

producing a stepped power control signal including a plurality of power control steps, wherein producing each one of the plurality of steps includes:

producing a step voltage,

applying a time delay to the step voltage, and

applying the stepped power control signal to a power control input of the amplifier; and

eliminating a plurality of harmonics at each of the plurality of steps.

20. (New) The power amplifier circuit of claim 9, wherein the second input signal controls an envelope to the first input signal.

21. (New) The envelope of claim 20, wherein said envelope is used to form a curved ramp signal.

22. (New) The power amplifier circuit of claim 9, wherein the output of the second transistor comprises a signal that is proportional to the product of the output signal of the first transistor and the input signal to the second transistor.

23. (New) The data link system of claim 8, wherein the transceiver is connected to a point of service.

24. (New) The data link system of claim 8, wherein the transceiver is connected to a client.

25. (New) The stepped power control signal of claim 11, comprising steps of equal magnitude.

26. (New) The stepped power control signal of claim 11, comprising steps of unequal magnitude.

27. (New) The control signal of claim 11, wherein the control signal is digital in nature.

28. (New) The said steps of claim 11, wherein each of the said steps are programmable according to a desired number of bits.

29. (New) The transceiver of claim 8, wherein the transceiver can communicate with a second identical transceiver over a channel to decide upon a reduction in the power output of at least one of them, if the transceivers are too close to each other.

30. (New) The data link of claim 8, wherein the data link operates in accordance with a Bluetooth standard.

31. (New) A method of controlling power output of an amplifier comprising:

receiving a control signal;

producing a stepped power control signal including a plurality of power control steps, wherein producing each one of the plurality of steps includes:

producing a step voltage,

applying a time delay to the step voltage, and

varying at least one aspect of the time delay to modify the time delay; and

applying the stepped power control signal to a power control input of the amplifier.

32. (New) A method of controlling power output of an amplifier comprising:

receiving a control signal;

producing a stepped power control signal including a plurality of power control steps, wherein producing each one of the plurality of steps includes:

producing a step voltage, and

applying a time delay to the step voltage; and

applying the stepped power control signal to a power control input of the amplifier

wherein an elapsed time from a first one of the plurality of steps to a second one of the plurality of steps is less than a maximum ramp time, and

wherein the second one of the plurality of steps corresponds to a desired output power level of the amplifier.

33. (New) A method of controlling power output of an amplifier comprising:

receiving a control signal;

producing a stepped power control signal including a plurality of power control steps, wherein producing each one of the plurality of steps includes:

producing a step voltage,

applying a time delay to the step voltage, and

eliminating a plurality of harmonics at each one of the plurality of steps; and

applying the stepped power control signal to a power control input of the amplifier.